

# Research on Accelerate the Construction of the Yellow Sea Urban Belt

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## ABSTRACT

Promoting high-quality development in coastal areas and building desirable ecological and scenic belts, coastal urban belts, and high-quality economic belts are major development tasks for Jiangsu Province during the 14th Five Year Plan period. The Yellow Sea urban belt is an important node in the national "two horizontal and three vertical" urbanization pattern, an important support for the Yangtze River Delta urban agglomeration, and an important battlefield for coastal development in Jiangsu. The path and countermeasures for the construction of the Yellow Sea urban belt are: (1) Highlighting the positioning of coastal central cities, constructing a "one body, two wings" T-shaped urban spatial development pattern, and enhancing the primacy of central cities. (2) Promote the integration of people, industry, and city, enhance the industrial and population support of parks and ports, and promote the integration of coastal industrial belts and urban belts. (3) Optimize the urban system, build a "one core, one belt, and multiple nodes" spatial system, and establish a "one city, one port" county-level dual center. (4) Accelerate infrastructure construction, enhance transportation accessibility along the Yellow Sea urban belt, build a number of port cities, fishing villages, cultural and tourism towns, and characteristic villages, enhance the coastal style of the Yellow Sea urban belt, and create the "most beautiful" coast in Jiangsu.

## KEYWORDS

Coastal Areas; Urban Belts; High-quality Development.

## 1. INTRODUCTION

Promoting high-quality development in coastal areas, building desirable ecological scenery belts, coastal style urban belts, and high-quality economic development belts, is a major development task for Jiangsu Province during the 14th Five Year Plan period. The Provincial Party Committee has given Yancheng a new hope of "facing the sea, developing towards the sea, empowering the future, becoming a model of green transformation, and making the lives of the people in the old areas more prosperous". With our city becoming the central city of the Yangtze River Delta and the gateway city of the Huaihe River Ecological Economic Belt to the sea, entering the era of high-speed rail, and successfully applying for World Heritage status in the Yellow Sea Wetland, the goals and paths of urban development have become clearer. Accelerating the construction of the Yellow Sea urban belt has become a strategic measure for our city to integrate into the Yangtze River Delta in the south, connect with the Bohai Sea in the north, connect with Northeast Asia in the east, and link with the central and western regions in the west, expand all-round opening up, enhance our strategic position in the new development pattern of "dual circulation", achieve comprehensive competitiveness and enter the advanced ranks of cities in the central area of the Yangtze River Delta, and become the first group of high-quality.

## 2. CURRENT STATUS OF RELEVANT RESEARCH

Developing and strengthening urban agglomerations and metropolitan areas, guiding the development direction and construction priorities of large, medium, and small cities in a classified manner, forming an urbanization spatial pattern with density, division of labor and cooperation, and complete functions, is an important task proposed in the 14th Five Year Plan for National Economic and Social Development and the 2035 Long Range Objectives Outline. Urban agglomerations centered around central cities are the main form of developed countries and an important way to reduce spatial barriers, improve efficiency, and enhance competitiveness. Among the six major urban agglomerations in the world, the northeastern Atlantic coast of the United States, the Pacific coast of Japan, the northwestern European urban agglomeration, and the Yangtze River Delta urban agglomeration centered on Shanghai are all distributed along the coast. The northeastern Atlantic coast urban agglomeration of the United States runs from Boston to Washington, with Boston, New York, Philadelphia, Baltimore, and Washington as its core cities, covering 40 small and medium-sized cities with a population of over 100000. The urban belt is 965 kilometers long, accounting for 1.5% of the United States area; The population accounts for 20% of the total population of the United States; The manufacturing industry accounts for 70% of the total output value in the United States, and the level of urbanization has reached over 90%. During the 14th Five Year Plan period in China, we will focus on promoting the development of urban agglomerations and comprehensively construct a "two horizontal and three vertical" urbanization strategic pattern. The coastal urban belt includes urban agglomerations such as Beijing Tianjin Hebei, Yangtze River Delta, Pearl River Delta, Shandong Peninsula, Guangdong Fujian Zhejiang coastal areas, and Beibu Gulf. At present, there are 53 cities at or above the city level along the coast of mainland China, including 2 municipalities directly under the central government (Shanghai, Tianjin), 7 sub provincial cities (Hangzhou, Guangzhou, Dalian, Qingdao, Ningbo, Xiamen, and Shenzhen), and 44 prefecture level cities (Table 1).

**Table 1.** Cities above the city level in coastal provinces of mainland China along the coast of Haiti

Province	Quantity	City
Liaoning	6	Dalian * *, Dandong, Jinzhou, Yingkou, Panjin, Huludao
Tianjin	1	Tianjin*
Hebei Province	3	Tangshan, Qinhuangdao, Cangzhou
Shandong	7	Qingdao * *, Dongying, Yantai, Weifang, Weihai, Rizhao, Binzhou
Jiangsu	3	Nantong, Yancheng, Lianyungang
Shanghai	1	Shanghai*
Zhejiang	7	Hangzhou * *, Ningbo * *, Wenzhou, Jiaxing, Shaoxing, Zhoushan, Taizhou
Fujian	6	Fuzhou, Xiamen * *, Putian, Quanzhou, Zhangzhou, Ningde
Guangdong	14	Guangzhou * *, Shenzhen * *, Zhuhai, Shantou, Jiangmen, Zhanjiang, Maoming, Huizhou, Shanwei, Yangjiang, Dongguan, Zhongshan, Chaozhou, Jieyang
Guangxi	3	Beihai, Fangchenggang, Qinzhou
Hainan	2	Haikou, Sanya

Note: \* Directly administered municipality, \* \* sub provincial city.

Jiangsu, as a major coastal economic and populous province in China, has only three prefecture level cities in its coastal areas, which is significantly less than the six prefecture level cities along the coasts of Liaoning and Fujian, the seven prefecture level cities along the coasts of Shandong and Zhejiang, and the 14 prefecture level cities along the coast of Guangdong. It is on par with the three prefecture level cities along the coasts of Hebei and Guangxi. There are 21 megacities with a permanent resident population of more than 5 million in urban areas in China, with a permanent resident population of about 290 million, accounting for 20.7% of the national population; The total GDP of the region is about 33.6 trillion yuan, accounting for 33.1% of the national economy, including coastal cities such as Dalian, Qingdao, Hangzhou, and Dongguan. It can be seen that the number and scale of cities in Jiangsu's coastal areas are relatively small, and the development of coastal city belts and urban agglomerations lags behind.

### **3. THE STATUS AND ROLE OF URBAN BELT CONSTRUCTION ALONG THE YELLOW SEA**

The development of Jiangsu's coastal areas has been elevated to a national strategy, especially since the 18th National Congress of the Communist Party of China. Significant achievements have been made in port construction, industrial development, urban construction, and ecological environment protection. Promoting high-quality development in coastal areas has become a strategic pivot to leverage the overall development level of the province, a global issue related to the high-quality development of the province, and a strategic layout with significant leading and driving effects. The coastal style urban belt is an important task for the high-quality development of coastal areas, and the Yellow Sea urban belt is the main body of the coastal style urban belt.

#### **(1) An important node in the national "two horizontal and three vertical" urbanization pattern**

The urban belt along the Yellow Sea is located at the intersection of the "the Belt and Road", integrating the Yangtze River Delta in the south, connecting the Bohai Sea Rim in the north, connecting Northeast Asia in the east, and connecting the central and western regions in the west. It plays a role of opening the south to the north in the national coastal urban belt, and is the gateway for the urban belt along the land bridge to extend to the coast. At present, there are only three prefecture level cities in the coastal areas of Jiangsu, with an urbanization rate of 65.8%, which is lower than the average level of 70.6% in the province and has become a "valley" in the national coastal urban belt. With the completion of the Qingyan, Yantong, and Shanghai Nantong high-speed railways, transportation in the Beijing Tianjin Hebei, Yangtze River Delta, and Guangdong Hong Kong Macao Greater Bay areas has become more convenient, and the flow of population, materials, and information has accelerated. It is urgent to fill the gaps in the urban belt along the Yellow Sea.

#### **(2) An important support for the Yangtze River Delta urban agglomeration**

The Yangtze River Delta urban agglomeration, as the largest in China and the sixth largest in the world, holds a very important position in the national regional development strategy. Yancheng, as a city in the central area of the Yangtze River Delta and a Type II metropolis, has a population planning of 1-3 million, which is comparable to 10 cities in the 26 cities of the Yangtze River Delta urban agglomeration, including Ningbo, Wuxi, Changzhou, etc. (Table 2). At present, the coastal development axis of the Yangtze River Delta urban agglomeration is asymmetric between the north and south, and the urbanization level of Jiangsu's coastal areas is lower than that of Zhejiang.

**Table 2.** Development scale of medium-sized and above cities in the Yangtze River Delta urban agglomeration

Scale level		Classification criteria (Urban resident population)	City
Super City		More than 10 million people	Shanghai
Megacity		5-10 million people	Nanjing
Big city	Type I big city	3-5 million	Suzhou, Hangzhou, Hefei
	Type II big city	1 million to 3 million	Wuxi City, Ningbo City, Nantong City, Changzhou City, Shaoxing City Wuhu City, Yancheng City, Yangzhou City, Taizhou City, Taizhou City
Medium sized cities		500000 to 1 million	Zhenjiang City, Huzhou City, Jiaxing City, Ma'anshan City, Anqing City, Jinhua City, Zhoushan City, Yiwu City, Cixi City

(3) An important battlefield for coastal development in Jiangsu

**Table 3.** Main Indicators of Jiangsu Coastal Areas (2019)

Region	Registered residence population at the end of the year (10000 persons)	Land area (square kilometers)	Regional Gross Domestic Product (RMB 100 million)	Per capita regional GDP (yuan)	General public budget revenue
Total of three coastal cities	2115.58	35096	18224.94	95750	1244.70
Total coastal areas	1660.38	28888	15362.44	100555	1092.76
Nantong City District	215.43	2140	3471.70	145934	287.21
Hai'an City	92.16	1183	1133.20	131195	62.66
Rudong County	101.24	2791	1053.40	107732	57.70
Qidong City	110.35	1715	1157.50	121874	70.65
Haimen City	99.34	1144	1352.40	149379	71.02
Lianyungang City	224.84	3012	1872.16	88899	172.26
Guanyun County	103.18	1538	359.19	44664	22.59
Guannan County	81.84	1028	381.65	60041	23.52
Yancheng City District	244.35	5131	2297.77	96460	199.33
Xiangshui County	62.16	1474	385.78	77661	22.00
Binhai County	122.12	1950	492.33	52939	23.20
Sheyang County	94.51	2606	563.87	64186	28.60
Dongtai City	108.86	3176	841.49	86850	52.00

Yancheng City has 582km coastline and 4553km<sup>2</sup> coastal mudflat, accounting for 56% and 70% of the province respectively. The coastal area is the main battlefield, and "developing towards the sea" is the key direction. The urban belt along the Yellow Sea has become the main construction position

of the coastal urban belt. There are 3 provincial-level cities, 4 county-level cities, 9 districts, and 6 counties in the coastal areas of Jiangsu, with an average of 10863 square kilometers and 1 provincial-level city. Jiangsu Province has an average of 7892 square kilometers and 1 provincial-level city. The area of provincial-level cities in the coastal areas is 1.4 times the average of the province. Jiangsu focuses on building the three major metropolitan areas of Nanjing, Suzhou Wuxi Changzhou, and Xuzhou, but the coastal areas, which account for 35% of the area and 24% of the population, have become a blank.

#### **4. THE PATH AND COUNTERMEASURES OF CONSTRUCTION ALONG THE YELLOW SEA URBAN BELT**

The ocean is an important strategic space for sustainable human development. The provincial party committee and government have made promoting high-quality development in coastal areas a major strategic choice, and are working together to create a "coastal axis" for high-quality development. The construction of the Yellow Sea urban belt has become a trend, relying on the promotion of the coastal industrial belt, the environmental development of the Yellow Sea ecological economic circle, and the expansion of the spatial structure benefits of the Yangtze River Delta urban agglomeration, to jointly build a coastal style urban belt with Jiangsu characteristics.

##### **(1) Highlight the positioning of coastal central cities and enhance the primacy of central cities**

Yancheng is located at the intersection of the "the Belt and Road" and the central area of the Yangtze River Delta. With the completion of the high-speed railway, the success of applying for the World Heritage in the Yellow Sea wetland, and the opening of the Huaihe River to the sea, the time-space coordinates of Yancheng have undergone historic changes. Accelerating the construction of "Yancheng in the Yangtze River Delta" and "Yancheng in the eastern coast of China" has become a new orientation for urban development. High starting point planning is to develop along the Yellow Sea urban belt. A T-shaped urban spatial development pattern of "one body, two wings" will be constructed, with the main urban area as the main body and the Binhai Port Industrial Park as the leading gateway to the northern Huai River, and the Dongtai Marine Economy Demonstration Zone as the leading area of the southern Yellow Sea Wetland World Heritage Site. Among them, the major urban areas are accelerating the integration of Yanfeng and Fengtian, promoting the integrated planning and layout of the land and space between the major urban areas and the main urban areas. Polarize the central urban area, break administrative boundaries, and achieve the concentration of high-quality resources towards the central city. At present, Yancheng City only has three districts: Yandu, Tinghu, and Dafeng. In accordance with the requirements of cities in the central area of the Yangtze River Delta, it is necessary to increase the number of districts as soon as possible, further expand the development zone and high-tech zone, and upgrade them to administrative districts, achieving the integration of administrative districts; Accelerate the northern expansion of the main urban area, promote the integration of Jianhu Shanggang into the main urban area on the basis of the transformation and upgrading of the northern urban area, smooth the northward passage of the main urban area, increase the population and economic scale of the main urban area, and enhance the level of the main urban area.

##### **(2) Promote the integration of people, industry, and city, and advance the integration of coastal industrial belts and urban belts**

Accelerate the process of urbanization and industrialization, implement the strategy of innovation driven development, focus on promoting the integrated development of people, industry, and city, and enhance the industrial and population support of urban areas, parks, and ports. Accelerate the development of advanced manufacturing industry. Based on the central urban area and the Economic Development Zone, Yannan New Area, and High tech Zone, we will focus on developing high-tech industries and strategic emerging industries such as new energy, automobiles, energy conservation

and environmental protection, electronic information, and marine biology, and promote the extension of leading industries to the mid to high end manufacturing sector; Vigorously develop port related industries. Actively leveraging the advantages of port resources, vigorously promoting the development of heavy chemical and heavy machinery industries such as steel, petrochemicals, and shipbuilding, and taking the initiative to undertake processing and manufacturing projects with large transportation volume, large land occupation space, and large water consumption in the Yangtze River Delta region; Relying on the "One Port and Four Zones" of Yancheng Port, we aim to enhance the efficiency of ports such as Dafeng Port, Sheyang Port, and Binhai Port, and promote the integration of port, industry, and city; Relying on carriers such as Yancheng China Korea Industrial Park, vigorously develop modern logistics industry, build multimodal transport centers and international logistics parks; Accelerate the development of coastal tourism industry, relying on parks such as Sheyang Red crowned Crane Nature Reserve, Dafeng Elk Nature Reserve, Dongtai Tiaozi Mud Heritage Site, and the abandoned Yellow River estuary, to build a number of coastal cultural and tourism towns and characteristic villages.

### (3) Optimize the urban system and build a "one city, one port" county dual center

Following the spatial architecture of "one core, one belt, and multiple nodes" along the Yellow Sea urban belt, a urban system will be constructed consisting of a central city, county town, key towns (or parks, ports, and reclamation areas), and new communities. The urbanization layout in coastal areas should focus on the central urban area, promote the rational flow of population from counties and towns to the urban area, and control the outflow of population from the urban area; Intensify the introduction of various talents, fully promote the Yellow Sea Pearl Talent Plan, actively encourage graduates from salt universities to stay in salt for employment and entrepreneurship, and increase the concentration and vitality of the city; Strengthen county-level centers, promote rational division of labor, complementary functions, and coordinated development among large, medium, small cities, and small towns. The county town is accelerating the level of intensive agglomeration development, promoting population concentration towards the county town, and striving for a population proportion of 50%. Coastal counties (cities, districts) such as Xiangshui, Binhai, Sheyang, Dafeng, Dongtai, etc. will focus on building "one city, one sub center" according to the "one city, one port" (i.e. Chenjiagang, Binhai Port, Sheyang Port, Dafeng Port, Jiangang Port), and promote the development of county towns towards the sea. Through the development of central cities, it drives the development of county towns and small towns, and forms a complete network of modern economic development with regional economic development as the fulcrum. Node towns, accelerate the cultivation and development of central node cities along the Yellow River urban belt. Binhai, as the central node between Yancheng and Lianyungang, and Dongtai, as the central node between Yancheng and Nantong, should be built as an important node city in the coastal urban belt as soon as possible.

### (4) Accelerate infrastructure construction and enhance the coastal style of the Yellow Sea urban belt

Promote interconnectivity of infrastructure. Strengthen the port and waterway functions, vigorously build port areas such as Dafeng Port, Binhai Port, and Sheyang Port, strengthen cooperation with Shanghai Port and Lianyungang Port, expand international container freight, enter the billion ton port line as soon as possible, build a fast railway channel, improve the highway network, increase aviation density as the key point, build a comprehensive three-dimensional transportation network, and enhance the traffic capacity inside and outside the region. Firstly, strengthen the Qinglian, Lianyungang, and Shanghai Nantong coastal high-speed railways, accelerate the construction of industrial ports such as Dafeng Port and Yangkou Port, and expand transportation capacity. Open up a new corridor in the Huai River Basin. Secondly, accelerate the connection between Huaiyang Town and Xusuohuai Salt Lake, strengthen the connection with Shanghai and Sunan to the south, Qingdao and Beijing Tianjin Hebei to the north, and Xuzhou and Longhai to the west, actively accepting the radiation from major cities (circles) such as Shanghai, Sunan, Xuzhou, and Beijing Tianjin Hebei; Improve the internal transportation system to achieve rapid access to cities, counties, towns, and ports within the district. Accelerate the renovation and upgrading of water conservancy facilities such as

the Tongyu Canal and the Huai River estuary, construct new energy grids along the coast, and promote equalization and integration of infrastructure and public services. Promote the integration of "three lives" (production, life, ecology) and the linkage of the three belts (urban belt, industrial belt, landscape belt). Innovate institutional mechanisms, innovate mechanisms and policy systems for rational allocation of population, industry, land, and resources, and promote coordination between people, land, and industry. In response to the net outflow of population in the three coastal cities, we will attract local farmers to become citizens and the outflow of population to return through large-scale industries, projects, markets, and circulation; Strengthen the guiding role of the government in the process of urbanization, and guide population and industries to cluster in major urban areas, key parks, and ports through planning and public services. Adhere to people-oriented and ecological civilization, take the carrying capacity of resources and environment as a prerequisite for urban layout and development, focus on promoting green development, circular development, and low-carbon development, reduce interference and damage to nature, and conserve and intensively use resources such as land, water, and energy; Strengthen coastal remediation and restoration, and protect the natural coastline. Inheriting regional culture, accelerating the construction of fishing port economic zones and characteristic towns such as Huangsha Port in Sheyang, Doulong Port in Dafeng, and Jiaogang in Dongtai, and creating a number of coastal towns with historical memory and regional characteristics. Relying on the International Wetland Forum and the Yellow Sea Ecological Economic Circle Alliance, we will strengthen cooperation and exchanges with domestic and international cities along the Yellow Sea, expand the international influence of the Yellow Sea Urban Belt, and accelerate the establishment of the Yellow Sea Urban Alliance.

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